



Wind Power Project Construction Issues

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MORTENSON[®]

VALUES

TRUST

RESPONSIBILITY

SERVICE

SAFETY

TEAMWORK

STEWARDSHIP



Since 1954,
these values have
shaped the way we
conduct our
business



WIND PROJECT EXPERIENCE

- 25 PROJECTS
- 12 CUSTOMERS
- 10 STATES
- 1196 MEGAWATTS





How We Do It

- Landowner Relations
 - KICK-OFF MEETING
 - SAFETY
 - PERSONAL INTERACTION
 - TRAFFIC
 - LOCAL
 - SUPPLY PROCUREMENT
 - INVOLVEMENT
- Project Staffing Levels



DISCUSSION POINTS

- PROJECT SITING
COORDINATION
- CONSTRUCTION
- ENGINEERING
- OPERATIONS
- PROCUREMENT
- SUMMARY

PROJECT SITING COORDINATION

PROJECT IDENTIFICATION

- COMPACT FARM-LIKE LAYOUT
- RIDGELINE LAYOUT
- MESA LAYOUT





PROJECT SITING COORDINATION

- SITE VISITS
- MAJOR COMPONENT LOCATIONS
 - SUBSTATIONS
 - TRANSMISSION LINES
- LANDOWNER COORDINATION
- MICROSITING
- REVIEW IMPACTS OF BEAM PATH ANALYSIS
- REVIEW IMPACTS OF FLIGHT PATH REQUIREMENTS
- REVIEW SETBACK REQUIREMENTS

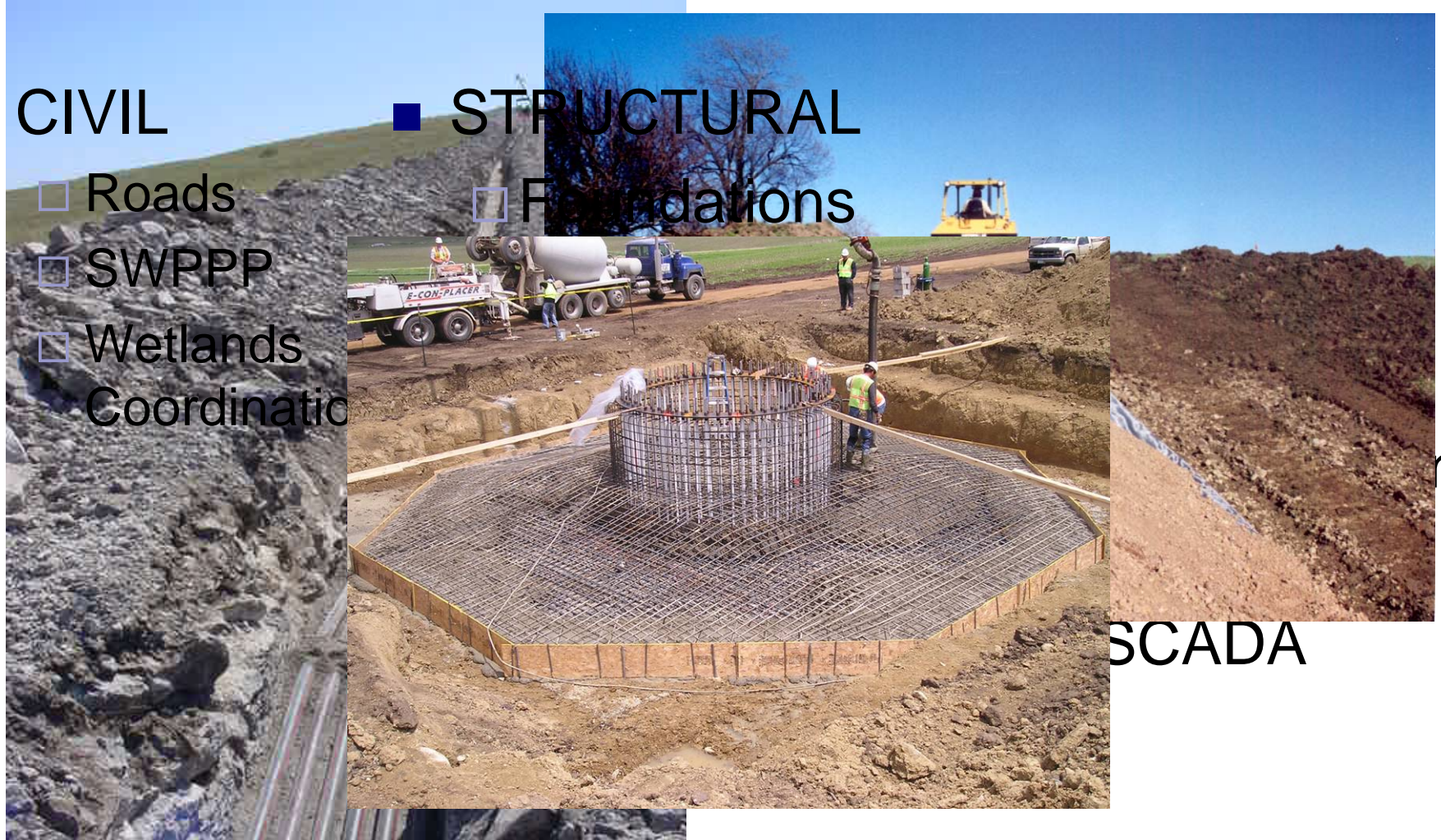
ENGINEERING

■ CIVIL

- Roads
- SWPPP
- Wetlands Coordination

■ STRUCTURAL

- Foundations



SCADA

PROCUREMENT

- STRUCTURAL
- ELECTRICAL
- TURBINES



CONSTRUCTION

■ ROADS

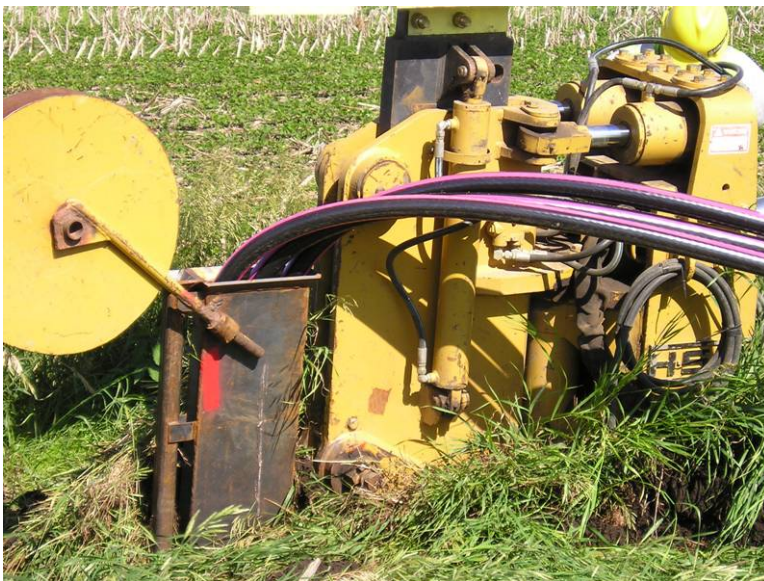
- ☐ Disturbed Areas
- ☐ Local Aggregate Sources



CONSTRUCTION

■ COLLECTION SYSTEM

□ Underground



□ Overhead



CONSTRUCTION

■ SUBSTATIONS



CONSTRUCTION

■ TURBINE INSTALLATION

- Delivery
Coordination
- Crane Walking
Paths





OPERATIONS

- REMAINING
INFRASTRUCTURE
FACILITIES

- MAINTENANCE

- ☐ WTG
- ☐ ELECTRICAL
- ☐ CIVIL

- PERSONNEL

- PROJECT MONITORING

- ☐ SCADA



SUMMARY

- PRE-PROJECT COORDINATION WITH DEVELOPERS
- ENGINEERING

THANK YOU!

QUESTIONS

